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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,291	06/12/2000	Kazuhiro Barada	106440	5339

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EXAMINER	
VON BUHR, MARIA N	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/592,291	BARADA ET AL.
	Examiner	Art Unit
	Maria N. Von Buhr	2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 Jun 2000 & 28 Mar 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06122000&03282002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-54 are pending in this application.

2. Receipt is acknowledged of papers submitted under 35 U.S.C. §119(a)-(d), which papers have been placed of record in the file.

3. Examiner acknowledges receipt of Applicant's information disclosure statements, received 12 June 2000 and 28 March 2002, with accompanying reference copies, which have been taken into consideration for this Office action.

4. Applicant is advised that should claims 37-39 and 40-45 be found allowable, claims 52-54 and 46-51, respectively, will be objected to under 37 CFR §1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP §706.03(k).

5. The following is a quotation of the second paragraph of 35 U.S.C. §112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention.

6. Claims 1-36, 39-51 and 54 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

> In claim 1, there is no clear and proper antecedent basis for "the base" nor for "the bar," since a plurality of bars have been previously provided for. Also, there is no clearly claimed support for the desired result of the "so that" clause, since nothing in the instant claim language necessitates that the "predetermined target resistance value" is actually reached. This presents ambiguity with regard to the metes and bounds of the claim, since there seems to be no nexus between the remainder of the claim and the accomplishment of this desired result. Similar

ambiguities exist in corresponding claims 15, 31, 40 and 46, with regard to "the bar" and the "so that" clause.

In claims 2, 5-7, 16, 19-21, 32, 34, 35, 41, 43, 44, 47, 49 and 50, the same ambiguity exists with regard to the "so that" clause, as was presented above with regard to claim 1.

In claims 6, 10, 13 and 27, there is no clear and proper antecedent basis for "the bar piece."

In claims 8, 9, 22 and 23, there is no clear and proper antecedent basis for "the base information."

In claim 12, there is no clear and proper antecedent basis for "the bar," since a plurality of bars have been previously provided for. Also, there is no functional antecedence for a "second value," since a first value has not been presented. In addition, there is no clearly claimed support for the desired result of the "so that" clause, since nothing in the instant claim language necessitates that the "predetermined target resistance value" is actually reached. This presents ambiguity with regard to the metes and bounds of the claim, since there seems to be no nexus between the remainder of the claim and the accomplishment of this desired result. Similar ambiguities exist in corresponding claims 26, 36, 45 and 51.

In claims 39 and 54, there is no functional antecedence for a "second value," since a first value has not been presented.

The remainder of the claims are rejected as necessarily incorporating the above-noted ambiguities of their parent claims.

7. 35 U.S.C. §101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 37-39 and 52-54 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Specifically, the claims are directed to a mathematical algorithm with no practical application of the calculated numerical value. See MPEP §2106(IV)(B)(1).

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by Applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 3, 5, 8, 11, 15, 17, 19, 22, 25, 29-31, 33, 40, 42, 46 and 48 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by Zammitt (U.S. Patent No. 5,210,667), which discloses a "thin film magnetic head and a method for making the thin film head by the use of electrical lapping guides includes the use of a resistive lapping guide that has a height dimension and an electrical resistance that optimizes the results of the comparison of the resistive lapping guide to a finished lapping guide," wherein "an interleaved magnetic head having alternating magneto-resistive read elements and inductive write elements can be precisely lapped by sensing the resistance of the lapping guide elements and using a formula to determine the final resistance of the finished lapping guide to halt the lapping process" (the abstract). See, at least, col. 2, lines 22-60; col. 3, lines 13-62; col. 6, line 15 - col. 7, line 7; col. 7, line 42 - col. 10, line 10.

11. Claims 1, 3-5, 8-11, 15, 17-19, 22-25, 29-31, 33, 40, 42, 46 and 48 are rejected under 35 U.S.C. §102(e) as being clearly anticipated by Hao et al. (U.S. Patent No. 6,347,983), which discloses a "method and system for lapping a magnetic transducer using an electrical lapping guide," including "rough lapping the transducer based on a first signal and fine lapping the transducer based on a second signal from a dummy transducer. The dummy transducer can have electrical properties substantially similar to electrical properties of the magnetic transducer. The first signal can include a stripe height calculated as a function of a reference resistor element and an analog resistor element. The second signal can include lap to reader resistance from the dummy transducer and a stripe height calculated

from a reference resistor element and an analog resistor element. The dummy transducer can also provide process noise monitoring capability during lapping" (the abstract). See, at least, col. 1, line 13 - col. 2, line 30; col. 2, line 52 - col. 3, line 34; col. 3, line 62 - col. 4, line 25; col. 5, lines 26-48.

12. Claims 2, 6, 7, 16, 20, 21, 32, 34, 35, 41, 43 and 44 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. §112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Although the prior art of record teaches the above-noted claim limitations, regarding "manufacturing of a magnetic transducer having a magneto-sensitive layer changing in electrical resistance in response to an external magnetic field" (as presented in paragraphs 10-11, above), none of the cited prior art of record, neither alone nor in combination, teaches nor fairly suggests the instantly claimed use of "values previously subjected to statistical processing as weighting coefficients."

13. Claims 12-14, 26-28, 36 and 45 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. §112, second paragraph, set forth in this Office action. Although the prior art of record teaches the above-noted claim limitations, regarding "manufacturing of a magnetic transducer having a magneto-sensitive layer changing in electrical resistance in response to an external magnetic field" (as presented in paragraphs 10-11, above), none of the cited prior art of record, neither alone nor in combination, teaches nor fairly suggests the instantly claimed use of "values previously subjected to statistical processing as weighting coefficients."

14. Claims 47 and 49-51 are now objected to under 37 CFR §1.75 as being substantial duplicates of claims 41 and 43-45. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP §706.03(k).

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 703-305-3837. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maria N. Von Buhr
Primary Patent Examiner
Art Unit 2125

MNVB
6/24/04